



### RALPP Tier 2 Status

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## Recent Changes

- New Kit
  - 3x90TB Disk Servers
  - 4 DB servers for dCache Head Nodes
- New Staff
  - Ian Loader switching from Windows to Linux
- Allocated 100TB disk space to LHCb
- T2K currently have large fairshare to meet deadlines





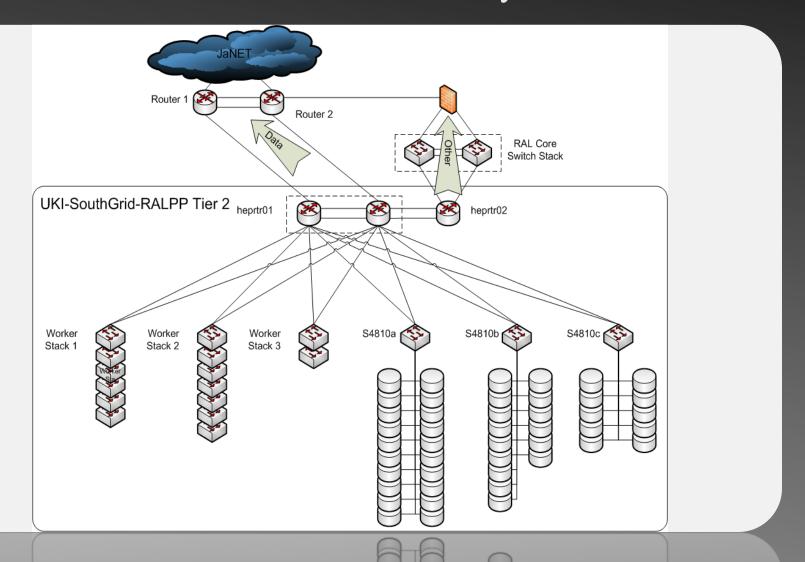
## Network Upgrade

- 10Gb/s Network Upgrade Nearing Completion
  - 2x10Gb/s backbones internally
  - Still need to double external links to 2x10Gb/s
  - Putting in enough fibre to go to 2x40Gb/s as part of move





## New Network Layout





#### Machine Room Move

- Have to vacate our local machine room
  - CPU and Disk will remain in Atlas
- Will move Infrastructure and Local Service
  Nodes to CICT Machine room down corridor
  - 6 new water cooled racks and our own power feed being installed for us
  - Have Moved 500TB of disk (25 Servers) to Atlas
  - Planning minimal downtime move





## Recent Stability Issues

- Variety of causes
  - The networks down it must be Tuesday
  - Argus server slowdowns
    - Seem to have been fixed by allocating more memory
  - Ldap server crashes
    - Spate of crashes in May Added restarter, no crashes since
  - Batch server issue
    - Overloads and missing stage in files





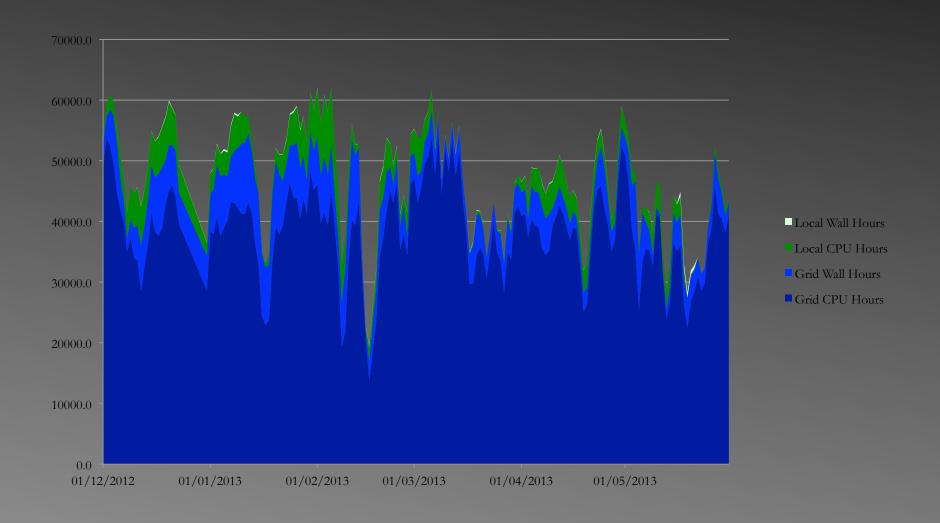
#### RALPP Under Utilization

- 3 Causes
  - Tier 3 Usage (~15%)
  - One CE Under reporting to APEL (~6%)
  - **−** Offline WNs (~5-10%)





# Local/Grid Wall/CPU Hours/Day







## Upcoming Changes

- Service Upgrades
  - SL6 Worker nodes planning to test new cluster
    with ARC-CE and HTCondor
  - dCache update to 2.2, SL6 and PostgreSQL 9.2
    - 4 new head nodes 2 live + 2 standby with live DB mirroring